

# OPERATION AND PARTS MANUAL



## **GLOBUG SERIES MODEL GBC *SERIAL NO. G2300001 AND ABOVE* CART TYPE LIGHTING SYSTEM**

Revision #0 (06/24/13)



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**THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.**

[illegible]

# Certificate



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**Manufacturing Plant:**

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JAPAN

Test report no.: USA-SS 17032848 001

Client Reference: Satomi Kugimiya

Tested to: CAN/CSA-C22.2 No. 9.0-96 (R2011)  
CAN/CSA-C22.2 No. 74-96+G11 (R2010)

Certified Product: Portable HID luminaire, Globug Series

License Fee - Units

Model Designation: 1) GB12BW, GB12BS, GB12BP,  
2) GBW, GBS, GBC, GBP

7

Rated Voltage: AC 120V, 60Hz  
Rated Power: 1) 430W 2) 1030W

Appendix: 1, 1-9

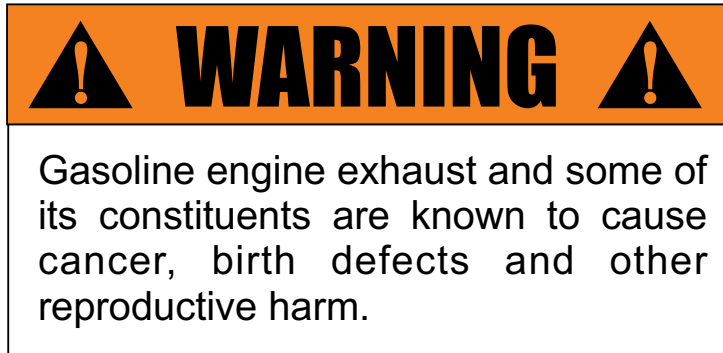
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Licensed Test mark:



Date of Issue  
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### NOTICE

Specifications and part numbers are subject to change without notice.

# PARTS ORDERING PROCEDURES

## Ordering parts has never been easier! Choose from three easy options:

Effective:  
January 1<sup>st</sup>, 2006



### Order via Internet (Dealers Only):

Order parts on-line using Multiquip's SmartEquip website!

- View Parts Diagrams
- Order Parts
- Print Specification Information



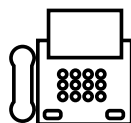
If you have an MQ Account, to obtain a Username and Password, E-mail us at: [parts@multiquip.com](mailto:parts@multiquip.com).

To obtain an MQ Account, contact your District Sales Manager for more information.

Goto [www.multiquip.com](http://www.multiquip.com) and click on **Order Parts** to log in and save!

Use the **internet** and qualify for a **5% Discount** on *Standard orders* for all orders which include complete part numbers.\*

Note: Discounts Are Subject To Change



### Order via Fax (Dealers Only):

All customers are welcome to order parts via Fax.

**Domestic (US) Customers dial:**

1-800-6-PARTS-7 (800-672-7877)

**Fax** your order in and qualify for a **2% Discount** on *Standard orders* for all orders which include complete part numbers.\*

Note: Discounts Are Subject To Change



**Order via Phone:** Domestic (US) Dealers Call:  
1-800-427-1244

### Non-Dealer Customers:

Contact your local Multiquip Dealer for parts or call 800-427-1244 for help in locating a dealer near you.



**International Customers** should contact their local Multiquip Representatives for Parts Ordering information.

## When ordering parts, please supply:

- |   |  |
|---|--|
| <input type="checkbox"/> Dealer Account Number                                | <input type="checkbox"/> Specify Preferred Method of Shipment:                         |
| <input type="checkbox"/> Dealer Name and Address                              | <input checked="" type="checkbox"/> UPS/Fed Ex <input checked="" type="checkbox"/> DHL |
| <input type="checkbox"/> Shipping Address (if different than billing address) | <input type="checkbox"/> Priority One <input checked="" type="checkbox"/> Truck        |
| <input type="checkbox"/> Return Fax Number                                    | <input type="checkbox"/> Ground  |
| <input type="checkbox"/> Applicable Model Number                              | <input type="checkbox"/> Next Day  |
| <input type="checkbox"/> Quantity, Part Number and Description of Each Part   | <input type="checkbox"/> Second/Third Day  |

### NOTICE

All orders are treated as *Standard Orders* and will ship the same day if received prior to 3PM PST.

WE ACCEPT ALL MAJOR CREDIT CARDS!



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## SAFETY INFORMATION

Do not operate or service the equipment before reading the entire manual. Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the safety messages and operating instructions could result in injury to yourself and others.



### SAFETY MESSAGES

The four safety messages shown below will inform you about potential hazards that could injure you or others. The safety messages specifically address the level of exposure to the operator and are preceded by one of four words: **DANGER**, **WARNING**, **CAUTION** or **NOTICE**.

### SAFETY SYMBOLS

#### **DANGER**

Indicates a hazardous situation which, if not avoided, **WILL** result in **DEATH** or **SERIOUS INJURY**.

#### **WARNING**

Indicates a hazardous situation which, if not avoided, **COULD** result in **DEATH** or **SERIOUS INJURY**.



#### **CAUTION**

Indicates a hazardous situation which, if not avoided, **COULD** result in **MINOR** or **MODERATE INJURY**.

#### **NOTICE**

Addresses practices not related to personal injury.

Potential hazards associated with the operation of this equipment will be referenced with hazard symbols which may appear throughout this manual in conjunction with safety messages.

Symbol	Safety Hazard
	Burn hazards
	Electric shock hazards

# SAFETY INFORMATION

## GENERAL SAFETY

### ⚠ CAUTION

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, respiratory protection, hearing protection, steel-toed boots and other protective devices required by the job or city and state regulations.



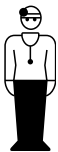
- **NEVER** operate this equipment when not feeling well due to fatigue, illness or when under medication.
- **NEVER** operate this equipment under the influence of drugs or alcohol.



- **ALWAYS** check the equipment for loosened threads or bolts before starting.
- **DO NOT** use the equipment for any purpose other than its intended purposes or applications.

### NOTICE

- This equipment should only be operated by trained and qualified personnel 18 years of age and older.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **ALWAYS** know the location of the nearest fire extinguisher.
- **ALWAYS** know the location of the nearest first aid kit.
- **ALWAYS** know the location of the nearest phone or **keep a phone on the job site**. Also, know the phone numbers of the nearest **ambulance, doctor** and **fire department**. This information will be invaluable in the case of an emergency.





## LIGHTING SYSTEM SAFETY

### WARNING

- **NEVER** disconnect any **emergency or safety devices**. These devices are intended for operator safety. Disconnection of these devices can cause **severe injury, bodily harm or even death**. Disconnection of any of these devices will void all warranties.

### CAUTION

- **NEVER** attempt service on a running machine.

### NOTICE

- To prevent the lighting system from overturning, **NEVER** use in winds that exceed 22 mph (10 m/s).
- The lighting system should only be used in temperatures between 23° to 104°F (-5° to 40° C). Failure to comply with these operating parameters could cause the lamp to malfunction and shorten the ballast life.
- **ALWAYS** keep the lighting system in proper running condition.
- Fix damage to lighting system and replace any broken parts immediately.
- **ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children and unauthorized personnel.

## LAMP SAFETY

### WARNING

- **NEVER** attempt to replace lamp with the power on. Always unplug the power cord from the generator or power source when changing the lamp.
- **ALWAYS** allow a sufficient amount of time for the lamp to **cool** before changing. The possibility exists of severe burns.

### CAUTION

- **NEVER** use force when installing the lamp. Excessive force could cause the lamp to break, causing bodily harm.

### NOTICE

- **NEVER** leave any grease or oil residue on lamp surface when replacing or removing lamp. This can create hot spots, reducing the service life of the lamp.
- **ALWAYS** make sure lamp surface is clean and dry.
- **ALWAYS** replace with MQ recommended type lamp. See parts section of this manual.
- If applicable, **ALWAYS** make sure the lamp guard is installed correctly. **NEVER** deform the lamp guard.
- **NEVER** unplug the lamp's AC power cable during operation.
- **ALWAYS** have a **trained technician** to install and remove lamp or replace any damaged fixture wiring.

# SAFETY INFORMATION

## BALLOON SAFETY

### ⚠ WARNING

- To prevent serious burns, **NEVER** touch or unzip the balloon envelope when the lamp is on.



### ⚠ CAUTION

- **ALWAYS** keep the balloon away from sharp objects and excessive amounts of heat.

### NOTICE

- To prevent balloon deformation, **NEVER** use lighting system in strong winds.
- **DO NOT** place the balloon inside its protective cover until the lamp has had a sufficient amount of time to cool down. This will prevent the balloon's nylon cover from being burned (touching the lamp surface).
- **ALWAYS** place the balloon inside its protective cover after each use. This will prolong the life of the balloon material, keeping it protected from harsh environmental elements.
- Replace balloon immediately if damaged. A damaged balloon will not inflate properly, and may become more damaged by touching the hot lamp surface.
- **DO NOT** use excessive force when zipping and unzipping the balloon. Be gentle with the zipper mechanism. If the zipper is broken, the balloon will become unusable.

## GENERATOR SAFETY

If using a generator to power lighting system, refer to applicable generator manual safety information section.



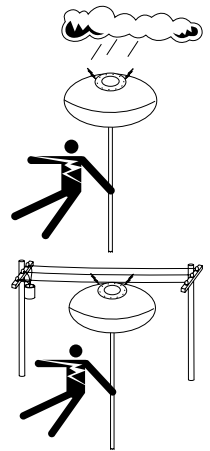
## ELECTRICAL SAFETY

### ⚠ DANGER

- Lighting system is equipped with a ground pin on the power plug. For your protection, **ALWAYS** complete the grounding path. **NEVER** insert the AC power plug into a 2-prong receptacle to operate lighting system.

When applying power to the lighting system, **ALWAYS** connect the AC power plug to a 3-prong receptacle that is grounded. The possibility exists of **electrical shock, electrocution and even death** if the lighting system is not grounded.

- **NEVER** operate lighting system or handle any electrical equipment while standing in water, while barefoot, while hands are wet or in the rain. A dangerous **electrical shock** could occur, causing **severe bodily harm or even death**.

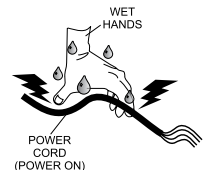


- **ALWAYS** make sure the area above the lighting system is open and clear of overhead power lines and other obstructions. Contact with overhead power lines or other obstructions could result in equipment damage, **electrical shock, electrocution and even death**.

## Power Cord/Cable Safety

### ⚠ DANGER

- **NEVER** let power cords or cables **lay in water**.
- **NEVER** use **damaged** or **worn** cables or cords. Inspect for cuts in the insulation
- **NEVER** grab or touch a live power cord or cable with wet hands. The possibility exists of **electrical shock, electrocution or death**.
- Make sure power cables are securely connected. Incorrect connections may cause **electrical shock** and damage to the lighting system.



### NOTICE

- **ALWAYS** make certain that proper power or extension cord has been selected for the job. See Cable Selection Chart in this manual.

# SAFETY INFORMATION

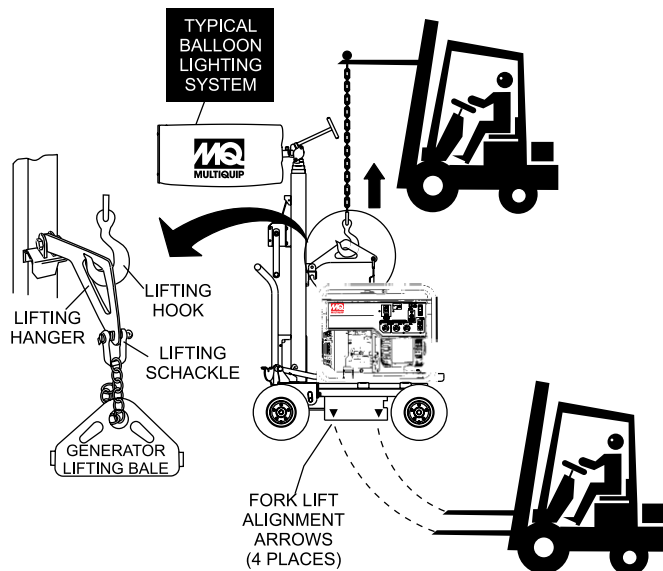
## LOADING AND UNLOADING

### Cart Type - With Lifting Hook

If lighting system is equipped with a transport lifting hook, refer to the following safety information.

#### ⚠ CAUTION

- Before lifting, make sure that lighting system parts are not damaged and screws are not loosened or lost.
- **ALWAYS** make sure crane or lifting device has been properly secured to lifting hook of the equipment.
- **NEVER** lift the equipment while lighting system is running.
- Make sure the mast is completely lowered before lifting the lighting system.
- Use adequate lifting cable (wire or rope) of sufficient strength.
- Use one point suspension hook and lift straight upwards.



- Never allow any person or animal to stand underneath the equipment while lifting.
- **DO NOT** lift machine to unnecessary heights.

### Cart Type - No Lifting Hook

If lighting system is not equipped with a transport lifting hook and the mast is removable, refer to the following safety information.

- Before lifting, make sure that the mast and lamp are removed as described in the manual.
- The cart can be safely lifted by two persons to the transport vehicle.

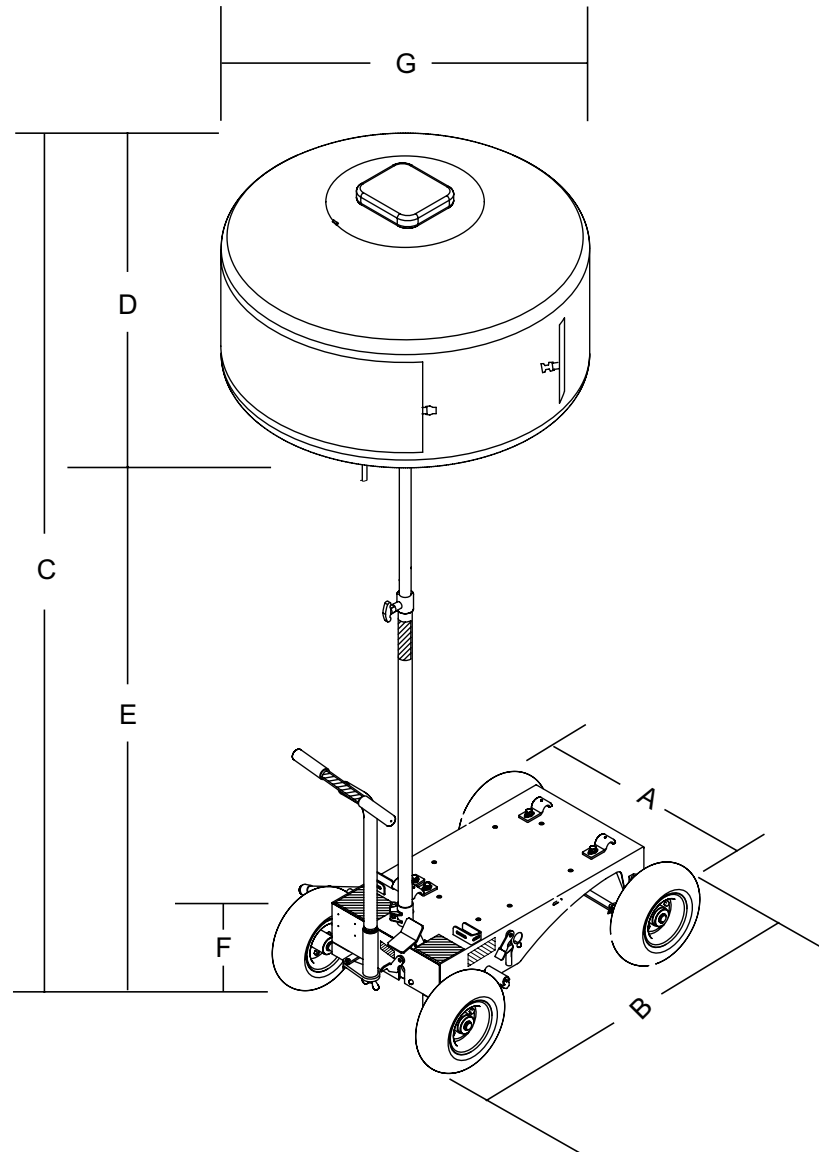
## TRANSPORTING SAFETY

#### NOTICE

- When transporting the lighting system, if applicable, always place in **stow position** and place mast in its carrying case.
- **ALWAYS** remove balloon/lamp assembly from the mast when transporting lighting system. This will prevent damage to the bulb due to vibration.
- **NEVER** leave the balloon/lamp exposed during transport. Exposure to excess wind or rain could damage the balloon's nylon cover.
- **ALWAYS** place balloon inside its protective cover during transport. Be sure the cover is secured tightly around the balloon/lamp assembly.

## SPECIFICATIONS

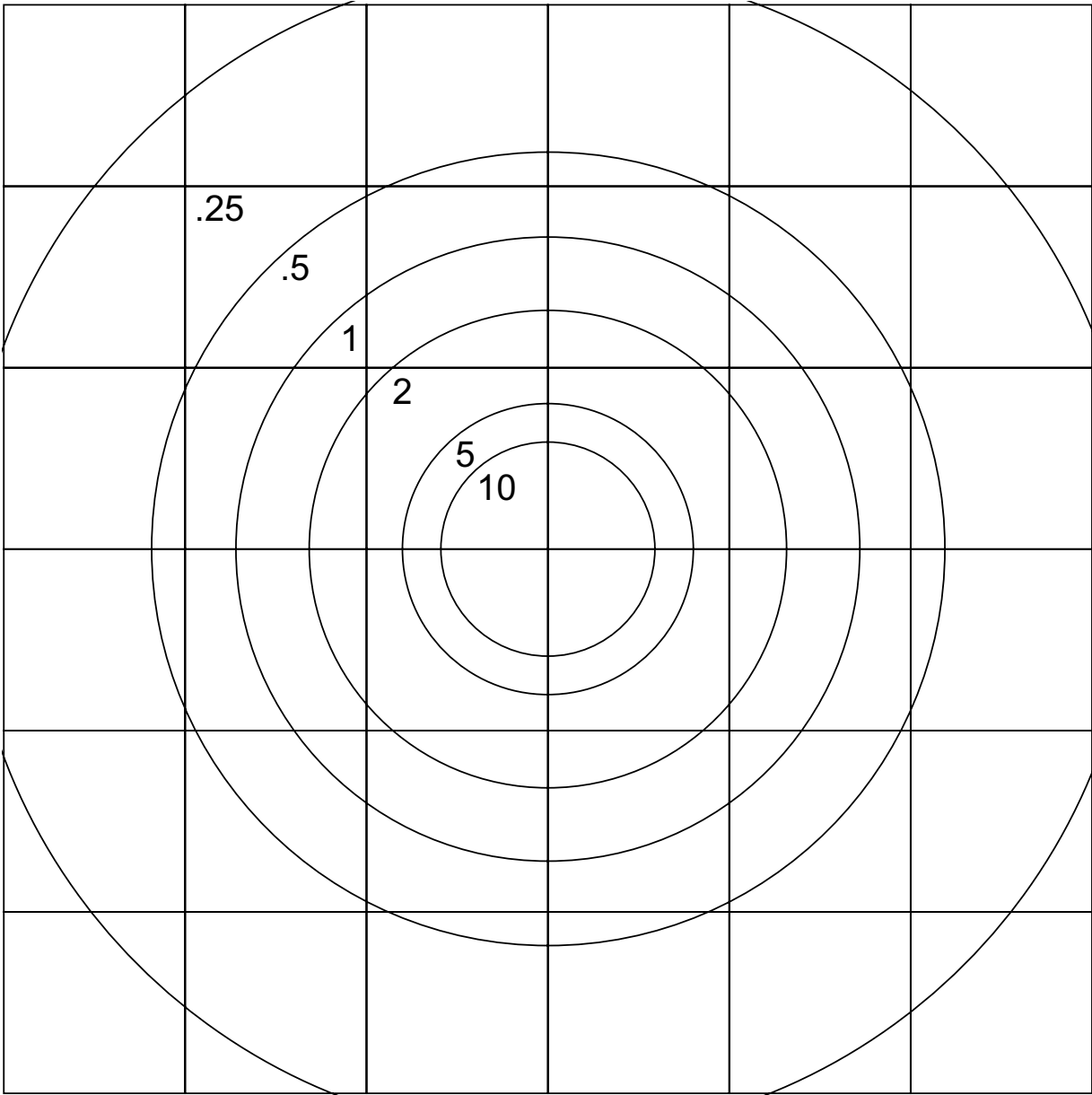
Table 1. Specifications	
Model	GBC
Input Voltage	90-130, 170-240 VAC
Max. Current	9.3 A @ 120 V
Frequency	50-60 Hz Single-Phase
Lamp Type	1,000 Watt Metal Halide
Total Luminous Flux	99,750 lm
Standard Balloon Diameter	47.2 in (1200 mm)
Light Coverage (360°)	150 ft (45.7 meters)
Lamp Surface Temperature (Longitudinal)	476.6° F (247° C) max
Lamp Surface Temperature (Transversal)	417.2° F (214° C) max
Balloon Dimensions (L x W x H)	47.2 x 47.2 x 28.3 in. (1200 x 1200 x 720 mm)
Balloon Material	Polyester
Balloon Heat-Resisting Temperature	320-356° F (160-180° C)
Internal Balloon Temperature	126° F (52° C)
Balloon Water Resistance	1,500 mm H <sub>2</sub> O
Fan Motor Voltage	24 VDC
Fan Motor Current	1.2 A
Fan Motor Pressure	0.324 kPA (0.047 psi)
Outriggers	3
Mast - Number of Stages	3 (air shock absorbers)
Dimensions (L x W x H) Upper Working Position	51.2 x 52.2 x 73.6 to 126 in (1,300 x 1,325 x 1,870 to 3,200 mm)
Dimensions (L x W x H) Storage	27.6 x 40 x 47.7 in (700 x 1,023 x 1,212 mm)
Weight	133.4 lb (49.8 kg)
Appropriate Generator	1700 Watts



**Figure 1. GBC Dimensions**

Table 2. Dimensions		
Reference Letter	Description	Dimension inches (mm)
A	Cart Width	27.6 (700)
B	Cart Length	40.3 (1,023)
C	Total Max. Height (with Standard Balloon)	127.3 (3,200)
D	Standard Balloon Height	25.6 (650)
E	Mast Height (without Balloon)	100.1 (2,543)
F	Cart Height	12.2 (310)
G	Standard Balloon Diameter	47.2 (1,200)

# FOOTCANDLE PLOT



VALUES LISTED AS FOOTCANDLES

SCALE: 1 GRID = 50 FT. (15.24 METERS)

Figure 2. Illumination Range

## GENERAL INFORMATION

The Multiquip GBC Lighting System is a general purpose floodlight tower intended for emergency and remote lighting needs. It is universally adaptable to all AC power supplies and accepts 50/60 Hz, 100-240 V.

The GBC uses a single 1,000 watt lamp with pure white light for maximum illumination with a light coverage of up to 150 feet. The standard balloon (GBP) that comes with the GBC provides 360° glarefree illumination. The balloon is self-inflating and easy to install and inflate in less than 20 seconds.

The GBC has a three-stage mast that extends to a height of up to 12 feet. It has a steerable cart design for easy transportation. Three outriggers on the cart ensures great stabilization.

The GBC can be powered by a variety of Multiquip's series generators with an output power of 1.7 kW or greater.

If an extension cord is necessary to connect to a power source, refer to Table 3 to select the proper length.

**Table 3. Extension Cord Gauge Selection**

Ampere Rating Range	Volts	Length of Cord in Feet								
	115V	25 Ft.	50 Ft.	100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	400 Ft.	500 Ft.
	230V	50 Ft.	100 Ft.	200 Ft.	300 Ft.	400 Ft.	500 Ft.	600 Ft.	800 Ft.	1000 Ft.
0 - 2		18	18	18	16	16	14	14	12	12
2 - 3		18	18	16	14	14	12	12	10	10
3 - 4		18	18	16	14	12	12	10	10	8
4 - 5		18	18	14	12	12	10	10	8	8
5 - 6		18	16	14	12	10	10	8	8	6
6 - 8		18	16	12	10	10	8	6	6	6
8 - 10		18	14	12	10	8	8	6	6	4
10 - 12		16	14	10	8	8	6	6	4	4
12 - 14		16	12	10	8	6	6	6	4	2
14 - 16		16	12	10	8	6	6	4	4	2
16 - 18		14	12	8	8	6	4	4	2	2
18 - 20		14	12	8	6	6	4	4	2	2

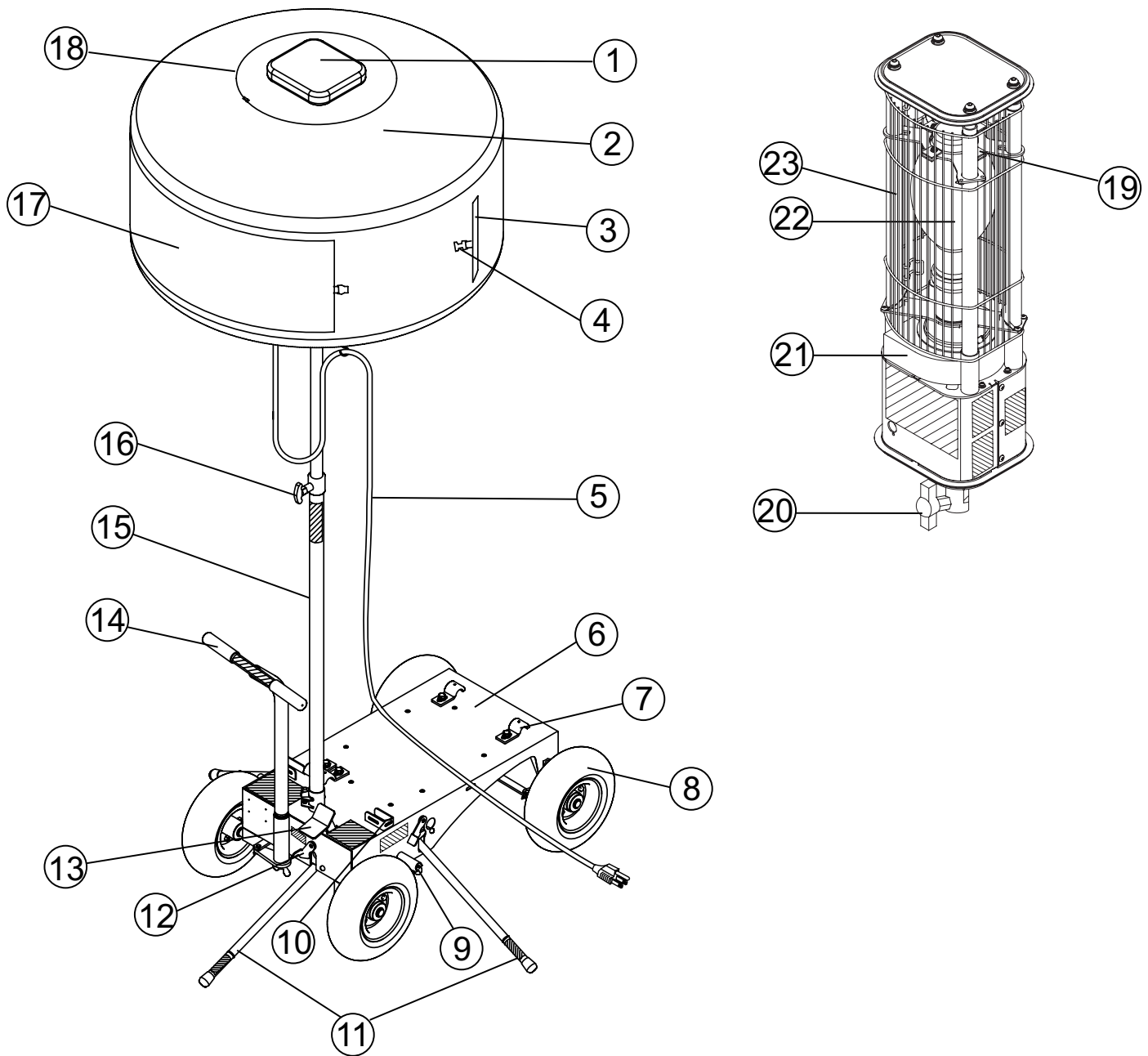


Figure 3. GBC Components



Figure 3 shows the location of the controls and components for the GBC Lighting System. The functions of each control is described below:

1. **Balloon Cover** — Stores balloon when GBC is not in use. Allow a sufficient amount of time for the lamp to cool down before storing balloon. Possibility exists of balloon getting burned.
2. **Balloon** — Made of heat resistant polyester, with a diameter of 47.2 inches (1,200 mm). Balloon is self-inflating and inflates in less than 20 seconds.
3. **Velcro** — Used to easily attach optional message strip to the balloon.
4. **Buckle** — Used to hold the balloon together when storing inside the cover.
5. **AC Power Cable** — Connects to the AC power source.
6. **Cart** — Holds the generator and can be steered easily to transport GBC to different locations.
7. **Locking Clamps** — To secure the generator to the cart platform, place clamps around the pipe frame of the generator. Tighten securely to prevent movement.
8. **Tire** — The GBC uses four pneumatic tires for easy maneuverability.
9. **Brake Pad** — When the brake pedal is pressed, this pad will strike and hold the rear tires in place.
10. **Strap Slots** — Allows suitcase generators to be strapped to cart securely.
11. **Outriggers** — Provides stability to the GBC. When raising the mast, outriggers should always be deployed.
12. **Counter Weight** — Locks the outriggers in place when they are deployed or stowed.
13. **Brake Pedal** — Step on this pedal and pull back T-handle to apply the brakes. To release the brakes, press down and hold brake pedal again then release.
14. **T-Handle** — Moves the GBC in either forward or reverse direction by pulling back or pushing forward. The T-handle also allows the cart to be steered left or right.
15. **Mast** — This mast is comprised of three separate stages. The mast can be raised in excess of 8 feet (without balloon).

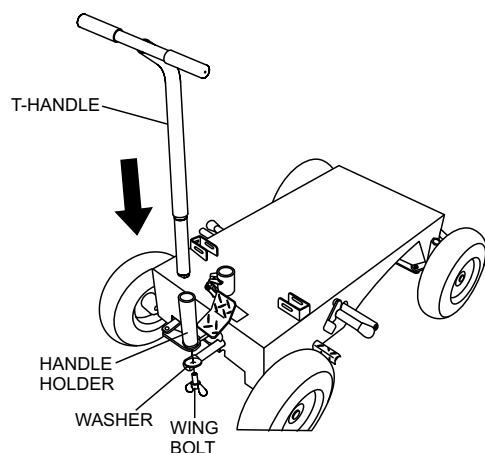


### WARNING

When raising the mast, always be on the lookout for overhead obstructions.

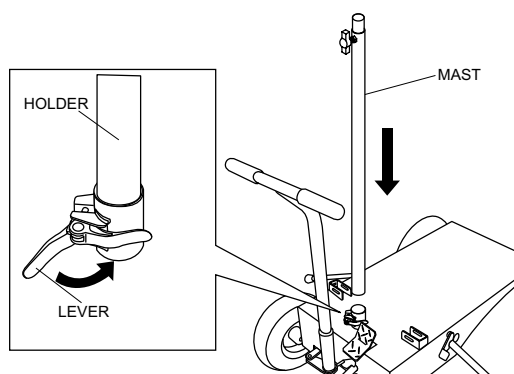
16. **Mast Bolt** — Loosen to raise mast and tighten to keep the mast in place when raised to the desired height.
17. **Message Strip (OPTIONAL)** — A 12 x 43 inch message strip (Part No. GBBALD1) may be attached to the balloon. The message strip can be purchased separately.
18. **Zipper** — Zips up balloon to completely close it when lamp is in place.
19. **Lamp Holder** — Holds lamp in place. Lamp is screwed into socket.
20. **Lamp/Balloon Bolt** — Used to tighten mast when attached to the lamp/balloon assembly.
21. **Fan Motor (Blower)** — Inflates the balloon as soon as power is applied to the GBC.
22. **Lamp** — 1000 watt metal halide bulb with pure white light for maximum illumination.
23. **Lamp Guard** — Protects the lamp from being hit by objects and balloon material from touching lamp.

1. Set the GBC cart on a firm level surface where there is enough space around the cart for the outriggers to be deployed.
2. Insert the T-handle into the handle holder on the cart. Tighten with the wing bolt. See Figure 4.



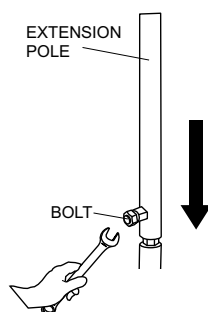
**Figure 4. T-Handle Installation**

3. Insert the mast into the mast holder and secure with lever as shown in Figure 5.



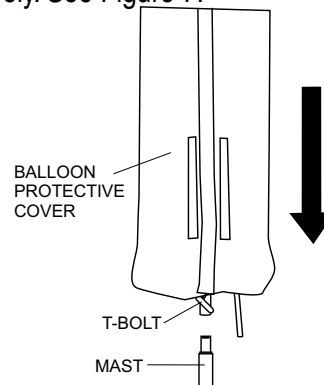
**Figure 5. Inserting the Mast Into Holder**

4. If desired, attach an optional extension pole to the top of the mast as shown in Figure 6.



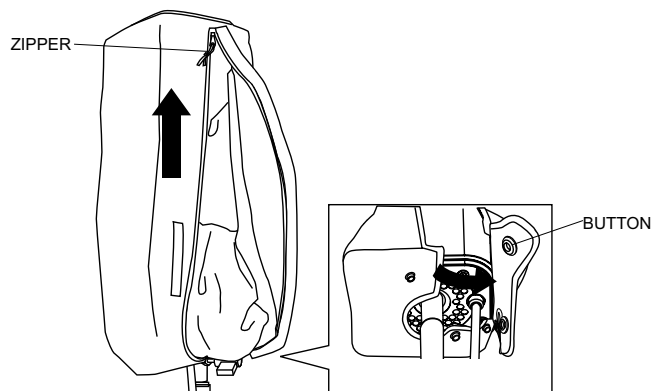
**Figure 6. Extension Pole Attachment**

5. Insert the balloon assembly into the mast. Tighten the T-bolt securely. See Figure 7.



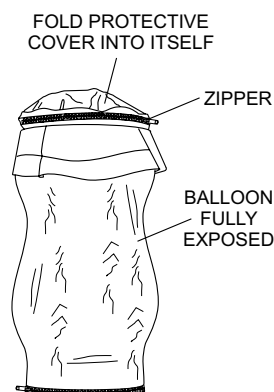
**Figure 7. Installing the Balloon**

6. Unsnap the three buttons on the bottom of the balloon cover and unzip the cover. See Figure 8.



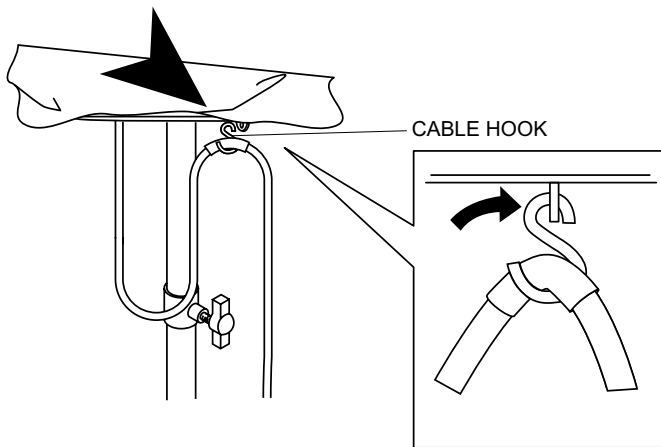
**Figure 8. Unzipping Balloon Cover**

7. Fold the balloon cover into itself and zip it up. See Figure 9.



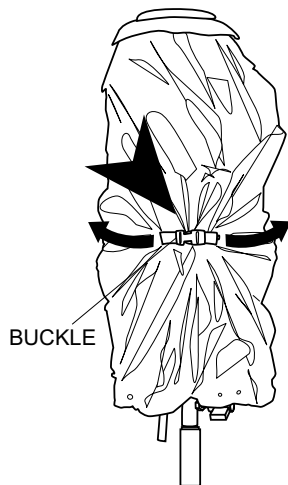
**Figure 9. Folding Balloon Cover**

8. Secure the power cable by hooking it to the eyelet on the bottom of the balloon as shown in Figure 10.



**Figure 10. Securing Cable with Hook**

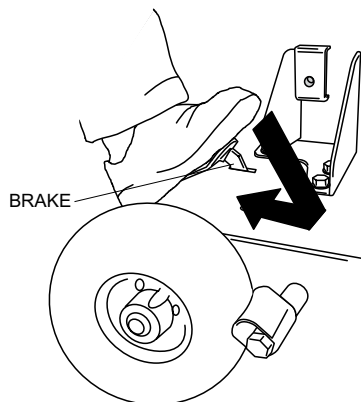
9. Release the buckle on the belt holding the balloon together. See Figure 11.



**Figure 11. Releasing Buckle**

## APPLYING PARKING BRAKE

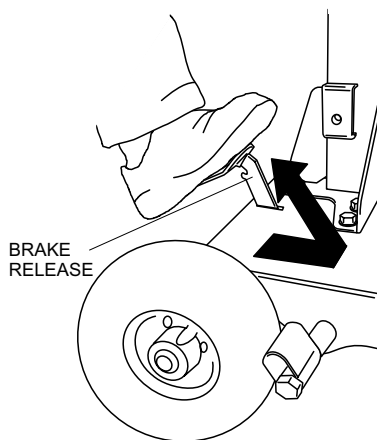
1. Step on the brake pedal while pulling on the T-handle until the brake pedal is all the way down. See Figure 12.



**Figure 12. Applying Brake**

## RELEASING PARKING BRAKE

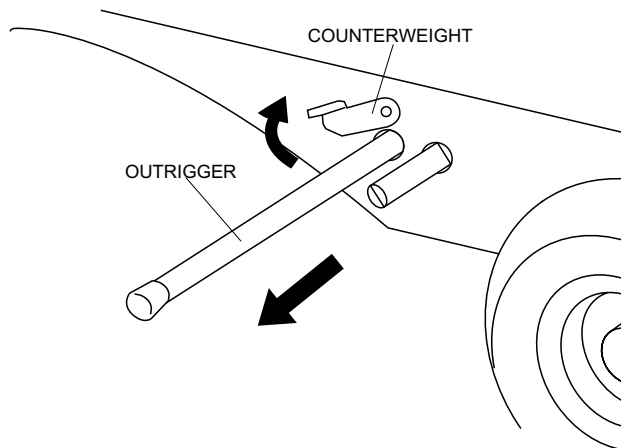
1. Step on the brake pedal, hold then release. See Figure 13. This will disengage the braking mechanism and will allow the GBC to be moved.



**Figure 13. Releasing Brake**

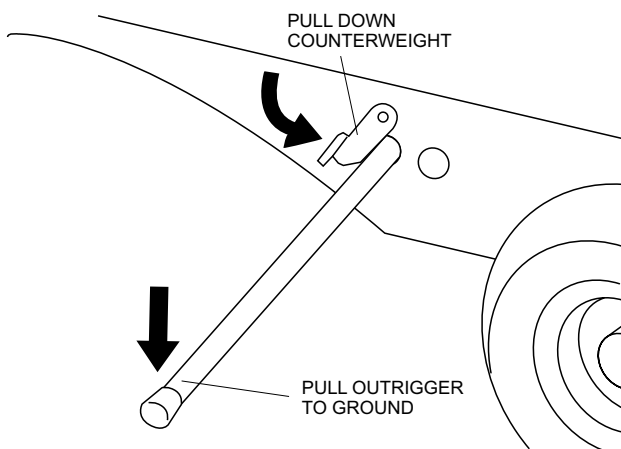
## DEPLOYING OUTRIGGER

1. Pull up the counterweight that holds the outrigger in place and pull the outrigger all the way out. See Figure 14.



**Figure 14. Deploying Outrigger**

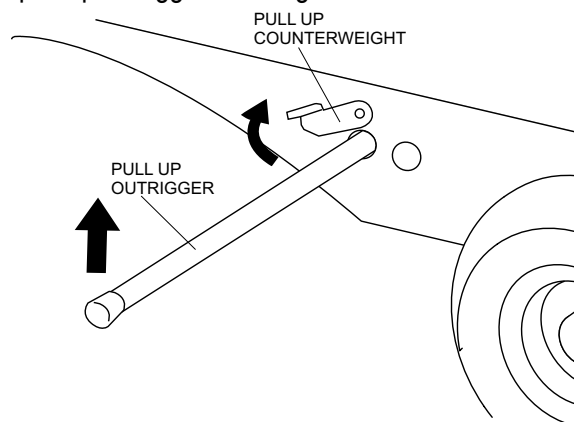
2. Pull the outrigger down until it touches the ground. Pull down counterweight to lock the outrigger in place. See Figure 15.



**Figure 15. Locking Deployed Outrigger**

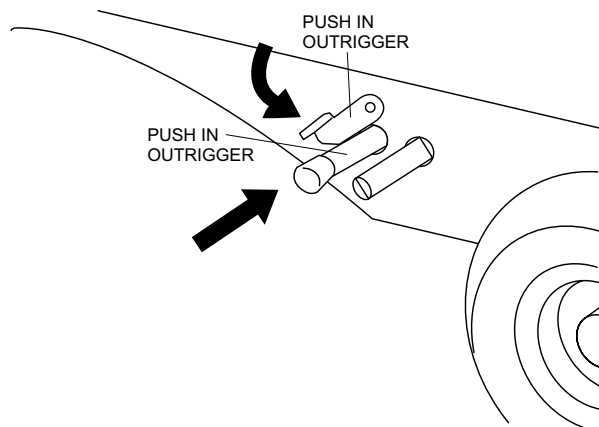
## STOWING OUTRIGGER

1. Pull up the counterweight to unlock the outrigger and pull up outrigger. See Figure 16.



**Figure 16. Stowing Outrigger**

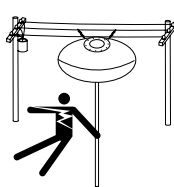
2. Push in outrigger until it is all the way in and pull down counterweight to lock it in place. See Figure 17.



**Figure 17. Locking Stowed Outrigger**

## RAISING THE MAST

### **⚠ DANGER**

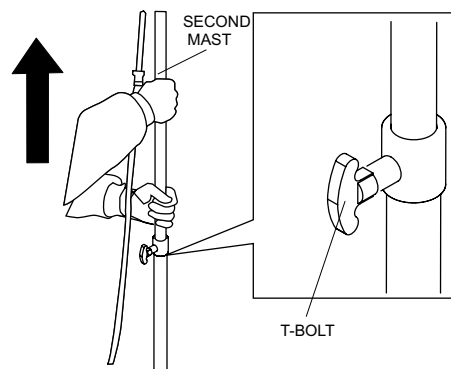


**ALWAYS** make sure the area above the lighting system is open and clear of overhead power lines and other obstructions. Contact with overhead power lines or other obstructions could result in equipment damage, **electrical shock, electrocution and even death.**

### **⚠ CAUTION**

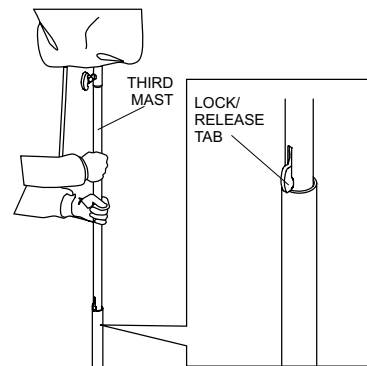
When raising or lowering the mast, keep hands and fingers clear of the mast sections to prevent hand and fingers from getting pinched.

1. Raise the second mast to the desired height and tighten the T-bolt securely. See Figure 18.



**Figure 18. Raising the Second Mast**

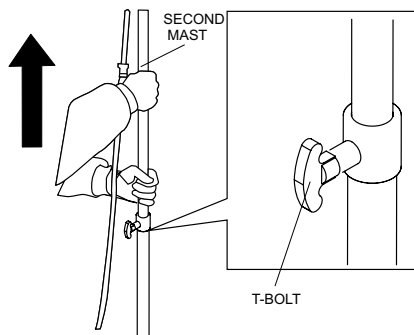
2. To raise the mast higher, raise the third mast until the lock/release tab pops out. The tab will automatically rest on the second mast. See Figure 19.



**Figure 19. Raising the Third Mast**

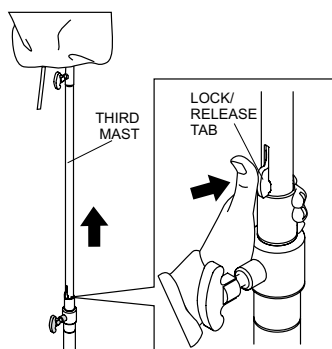
## LOWERING THE MAST

1. Loosen the T-bolt holding the second mast and push mast all the way down. Tighten T-bolt securely. See Figure 20.



**Figure 20. Lowering Second Mast**

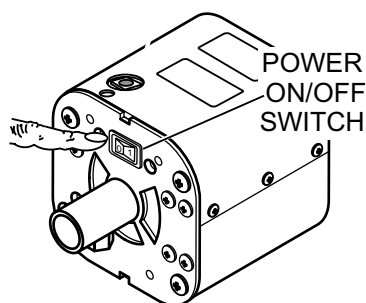
2. Push the lock/release tab on the third mast to release it and lower third mast. See Figure 21.



**Figure 21. Lowering Third Mast**

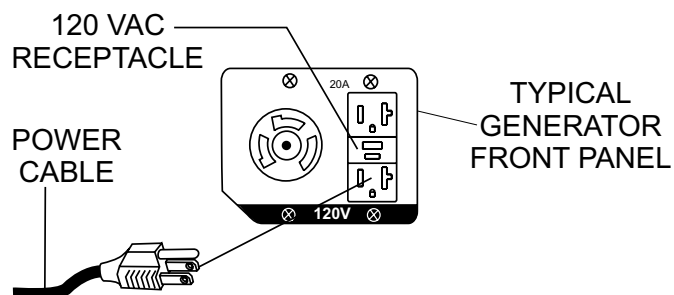
## APPLYING POWER

1. Before applying power, make sure that the Power ON/OFF switch (Figure 22) is in the OFF position.



**Figure 22. ON/OFF Switch**

2. Connect the AC power cable to the 120 VAC receptacle on the generator used. See Figure 23.

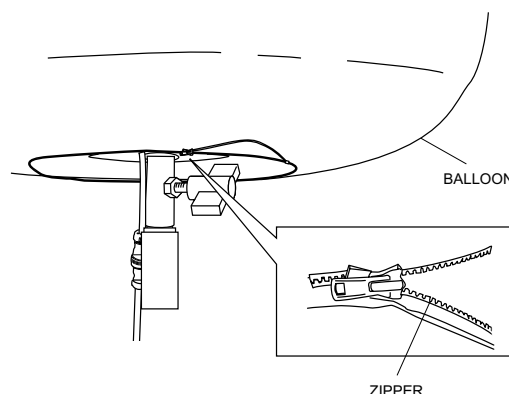


**Figure 23. Connecting to Power Source**

3. Start the generator as indicated in the generator manual.
4. Turn on the Power ON/OFF switch (Figure 22). The balloon will start to inflate and the lamp will turn on.

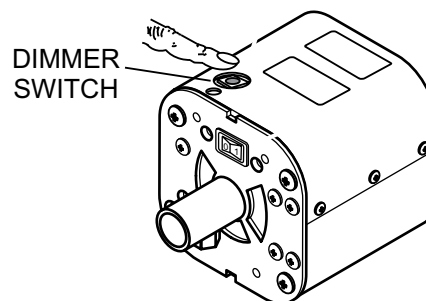
## DIMMING THE LAMP

1. Slightly unzip the bottom of the balloon to gain access to the dimmer switch (Figure 24).



**Figure 24. Unzipping Balloon**

2. Press the dimmer switch lightly (Figure 25). The LED will blink. The lamp should dim to about 75% brightness.



**Figure 25. Dimmer Switch**

3. To turn back the lamp to its original brightness, press the dimmer switch again. The LED will turn off.
4. To turn off the lamp while keeping the balloon inflated, press and hold the dimmer switch for three seconds. The LED will light red.
5. Zip up the bottom of the balloon completely after use of the dimmer switch.

## NOTICE

To turn on lamp again, after it was turned off with the dimmer switch, turn off the Power **ON/OFF** switch. Wait three to five minutes then turn the **ON/OFF** switch back on. The lamp will now light back to 100% brightness.

## NOTICE

If the power cable is accidentally unplugged from the power source, wait three to five minutes before reconnecting the power. This will allow time for the fan to reset and ensure balloon will inflate properly when power is reconnected.

## SHUTDOWN

1. Turn off the power switch of the generator.
2. Turn off the Power **ON/OFF** switch. The balloon should start to deflate and the lamp will turn off.
3. Disconnect the AC power cable from the generator.

## STORAGE

Before storing the GBC Lighting System, perform the following steps.

## NOTICE

Allow about 15 to 20 minutes for the lamp to cool down before storing the GBC. The possibility exists of the balloon getting burned if it touches a hot lamp.

1. Disconnect the lamp connector from the AC power cable.
2. Make sure the mast is completely lowered as described in **LOWERING THE MAST** section.
3. Unhook the AC power cable from the eyelet at the bottom of the balloon.
4. Lock the buckle to secure the balloon together.
5. Unzip the zipper on the protective cover and pull down cover over the balloon/lamp assembly.
6. Attach velcro tabs.
7. Loosen the T-bolt on the balloon/lamp assembly and lift balloon/lamp assembly from the mast.
8. Release the lever on the mast holder and pull out the mast.
9. Stow the three outriggers as detailed in the **STOWING OUTRIGGER** section.

## REPLACING LAMP

### DANGER

Never attempt to replace lamp in a wet place. The possibility exists of electric shock.

### WARNING

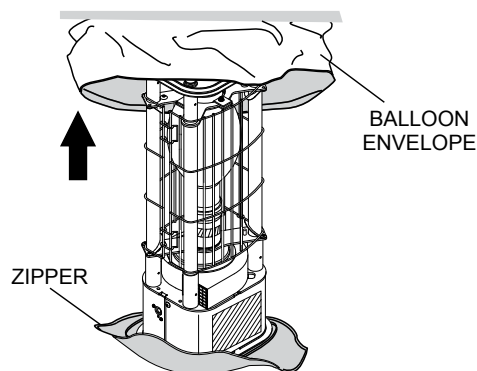


Always allow sufficient time for the lamp to cool down before replacing. The possibility exists of severe burns if hot lamp is touched.

### CAUTION

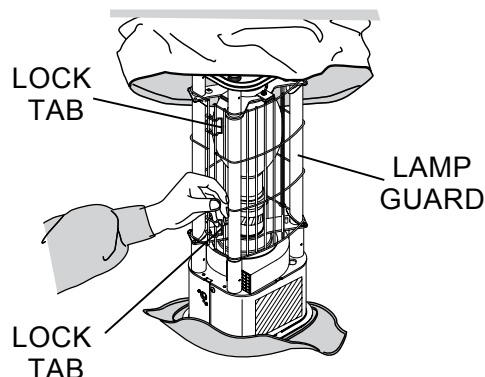
Always shutdown power source and remove balloon assembly from mast when replacing a broken lamp. Utmost care should be taken in handling broken lamp. The possibility exists of serious injury from handling a broken lamp.

1. Unzip the zipper at the bottom of the balloon and roll the balloon up to expose the lamp. See Figure 26.



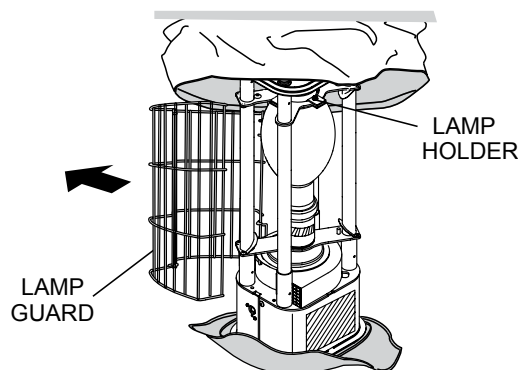
**Figure 26. Exposing Balloon**

2. Release the lamp guard locking tabs. See Figure 27.



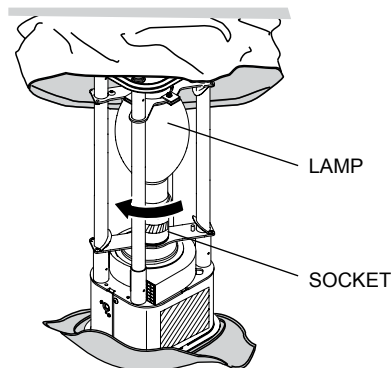
**Figure 27. Removing Lamp Guard**

3. Remove the lamp guard (Figure 28).



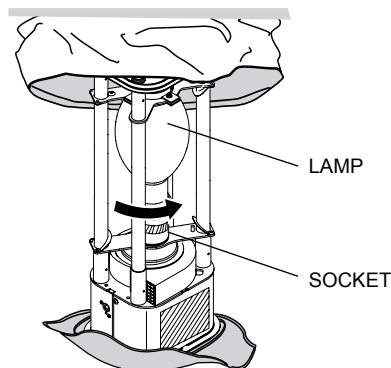
**Figure 28. Lamp Guard Removal**

4. Press tabs on the lamp holder and lift up holder to release lamp. Remove the lamp from the lamp socket by turning lamp counterclockwise. See Figure 29.



**Figure 29. Removing Lamp**

5. Install new lamp into socket and turn lamp in a clockwise direction until tight. See Figure 30. Press tabs on the lamp holder and slowly bring down the holder to secure lamp in place.



**Figure 30. Installing New Lamp**



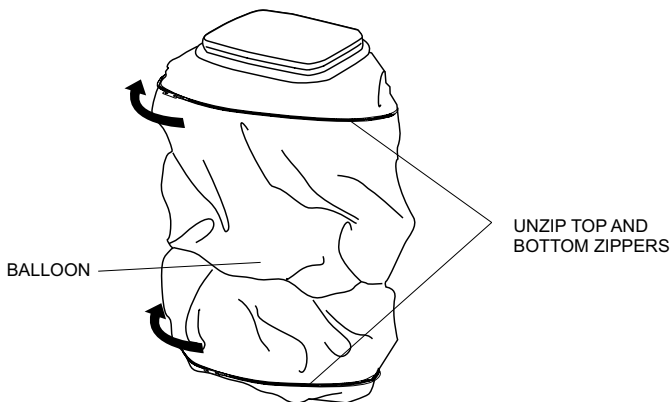
## NOTICE

Do not use excessive force when screwing the lamp to prevent lamp from breaking.

6. Reinstall lamp guard.
7. Pull down balloon and zip the bottom zipper to cover lamp.

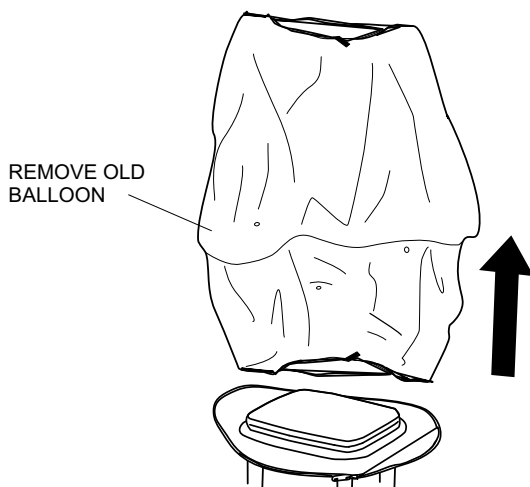
## REPLACING BALLOON

1. Unzip the top and bottom of the balloon. See Figure 31.



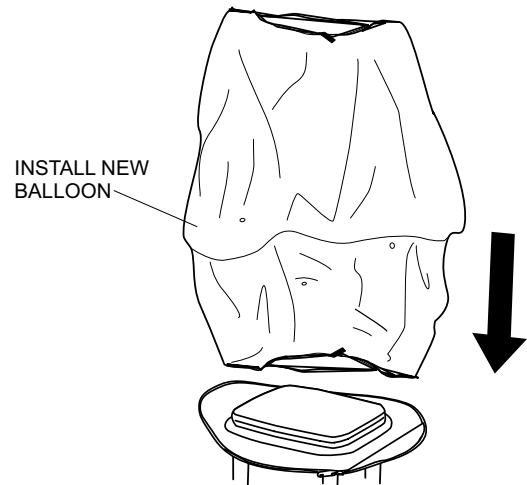
**Figure 31. Unzipping Balloon**

2. Slide out the old or worn balloon over the top of the lamp guard assembly. See Figure 32.



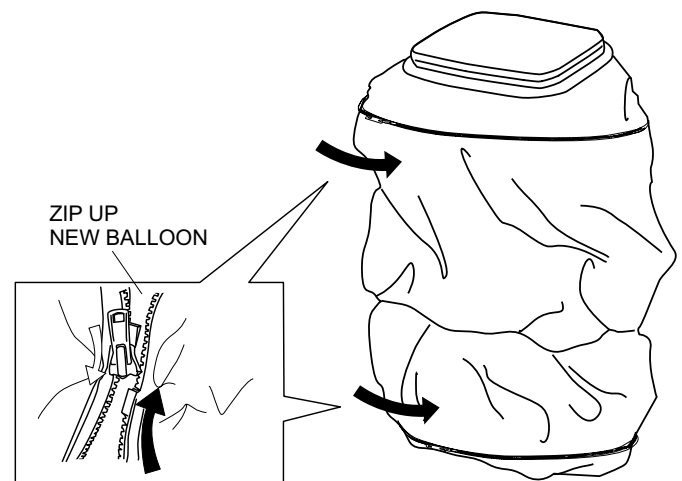
**Figure 32. Removing Old Balloon**

3. Slide in the new replacement balloon over the top of the lamp guard assembly. See Figure 33.



**Figure 33. Replacing Balloon**

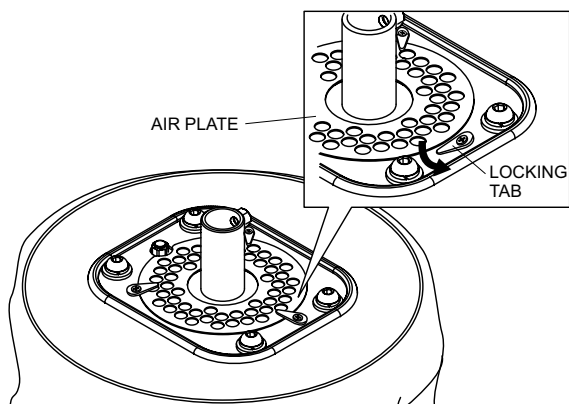
4. Zip up the top and bottom of the new balloon. See Figure 34.



**Figure 34. Zipping Up New Balloon**

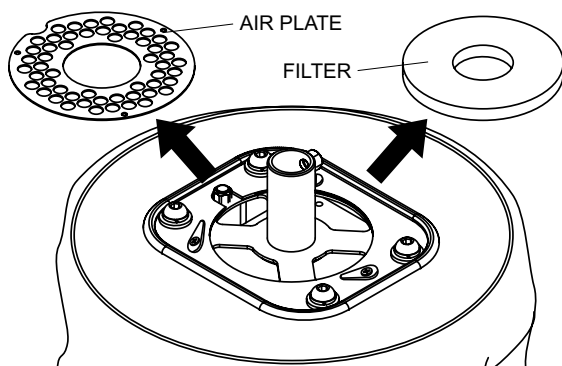
## FILTER REPLACEMENT

1. Remove the balloon as described in the **STORAGE** section.
2. Turn the balloon/lamp assembly upside down to access the filter. See Figure 35.



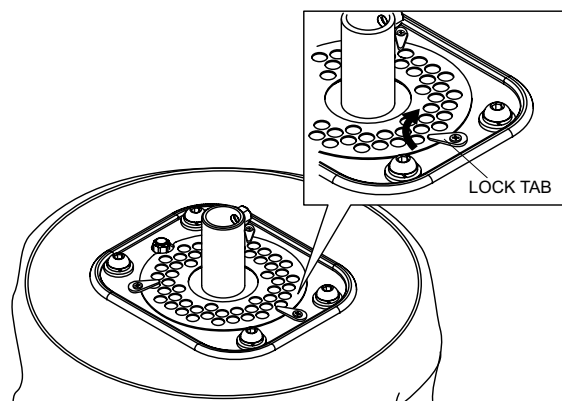
**Figure 35. Accessing Filter**

3. Turn the three locking tabs outwards to release the air plate. See Figure 35.
4. Remove the air plate and filter. See Figure 36.



**Figure 36. Filter Removal**

5. Install a new filter and reinstall the air plate.
6. Turn the three locking tabs inwards to lock the air plate in place. See Figure 37.



**Figure 37. Locking Air Plate**

**Table 4. Troubleshooting**

<b>SYMPTOM</b>	<b>POSSIBLE PROBLEM</b>	<b>SOLUTION</b>
Lamp does not light.	Is plug disconnected?	Plug in correctly.
	Is generator power switched off?	Turn on switch.
	Is lamp loose?	Screw lamp securely into socket.
	Is power connector disconnected or loose?	Connect disconnected connector.
	Are any other electric appliances (other than light tower) plugged into power source?	Unplug all other appliances.
	Is model of lamp incompatible?	Use genuine MQ lamp.
	Is lamp not cool enough to light again? (Interval of 5 to 10 minutes is required before turning on lamp again)	Wait for lamp to cool down.
Lamp only lights for a short time.	Is ambient temperature too high (more than 104° F (40° C)?	Move lamp where there is proper ventilation.
Balloon does not inflate.	Is fan motor (blower) not working properly?	Check and repair fan motor (blower).
	Is balloon envelope defective?	Repair or replace balloon envelope.

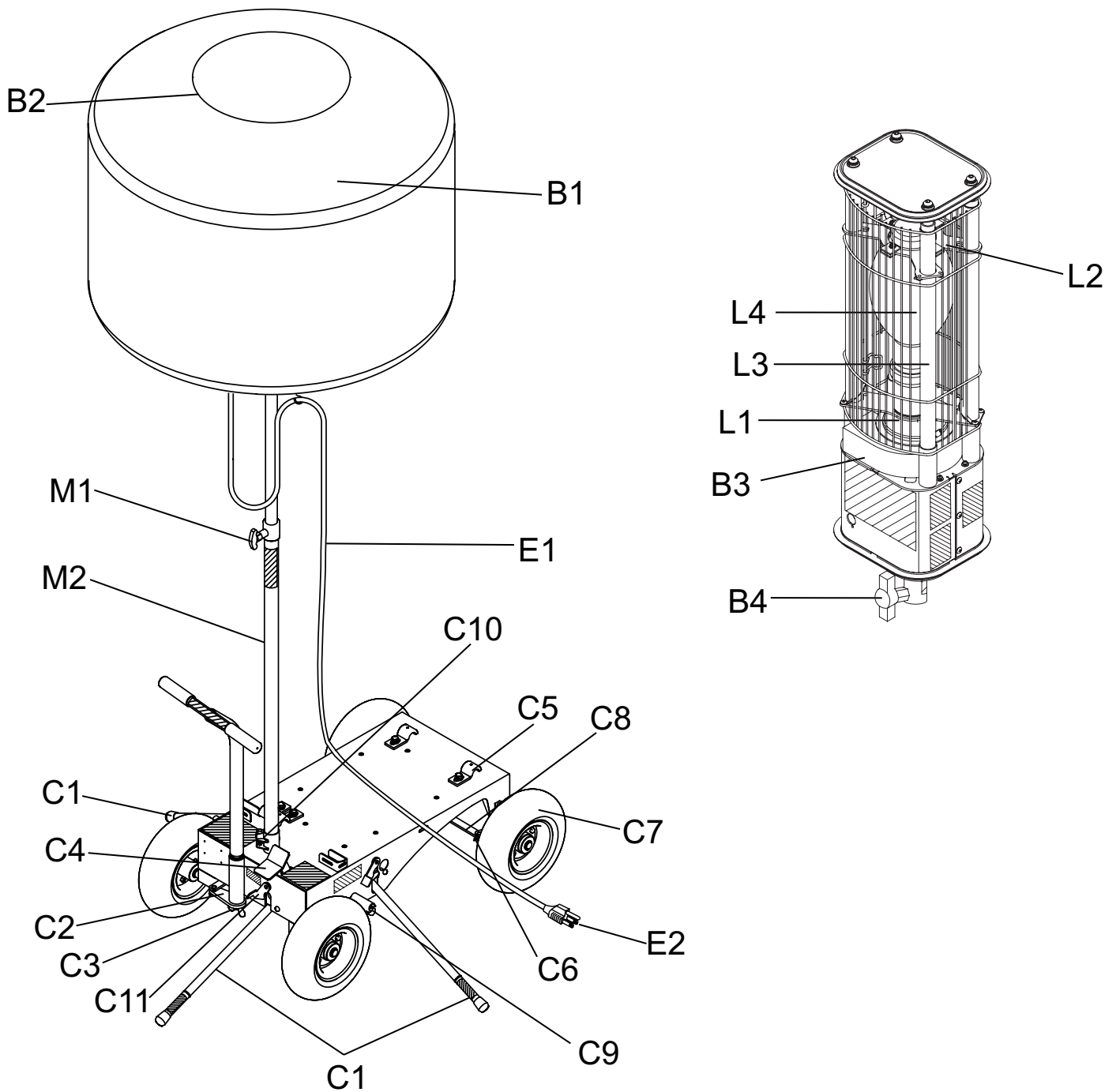


Figure 38. Maintenance Check Points

**Table 5. Periodic Check and Maintenance**

FIGURE	PART	CHECK ITEM	SOLUTION	
Lamp	L1	Lamp (Base)	Lamp base loose?	Screw in securely. •
	L2	Lamp Holder	Lamp holder loose?	Replace. #
	L3	Pipe Frame	Pipe Frame skewed?	Replace. &
	L4	Lamp	Defective lamp?	Replace. •
Balloon	B1	Balloon (Envelope)	Defective or dirty?	Replace. •
	B2	Zipper	Broken?	Replace. •
	B3	Fan Motor (Blower)	Not working properly?	Repair or replace. \$
	B4	T-handle bolt (balloon)	Broken?	Replace. •
Cart	C1	Outrigger	Movement not smooth?	Spray grease. \$
	C2	T-handle and wheels	Improper movement?	Tighten securely. \$
	C3	Bolt for handle	Bolt loose?	Tighten securely. \$
	C4	Brake pedal	Linkage not working correctly?	Check, spray grease. •
			Notch worn-out?	Replace. •
	C5	Stopper	Damaged?	Replace. #
	C6	Front wheel pivot	Does not turn smoothly?	Check, spray grease. \$
	C7	Tires	Tire pressure not 35.5 psi (294 kPa)?	Adjust. •
	C8	Link for front shaft	Linkage not working correctly?	Spray grease. \$
	C9	Brake	Not working properly?	Adjust. •
	C10	Lever	Lever loose?	Tighten securely. •
	C11	Counterweight (Outrigger)	Does not work smoothly?	Spray grease. •
Electric	E1	Power cable	Defective or worn cable?	Replace. •
	E2	Plug	Damaged?	Replace. #
• — Check daily		# — Every 20 hours	\$ — Every 100 hours	& — Every 500 hours



[illegible]

## EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

### NOTICE

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

### SAMPLE PARTS LIST

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT .....	1	INCLUDES ITEMS W/%
2%		WASHER, 1/4 IN. ....		NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN. ...	1	MQ-45T ONLY
3	12348	HOSE .....		A/R ...MAKE LOCALLY
4	12349	BEARING .....	1	S/N 2345B AND ABOVE

### NO. Column

**Unique Symbols** — All items with same unique symbol

(@, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

**Duplicate Item Numbers** — Duplicate numbers indicate multiple part numbers, which are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.

### NOTICE

When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

### PART NO. Column

**Numbers Used** — Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at the time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

### QTY. Column

**Numbers Used** — Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

### REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

**Assembly/Kit** — All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

**Serial Number Break** — Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

**Specific Model Number Use** — Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

**“Make/Obtain Locally”** — Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

**“Not Sold Separately”** — Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.



## SUGGESTED SPARE PARTS

---

### GBC LIGHTING SYSTEM

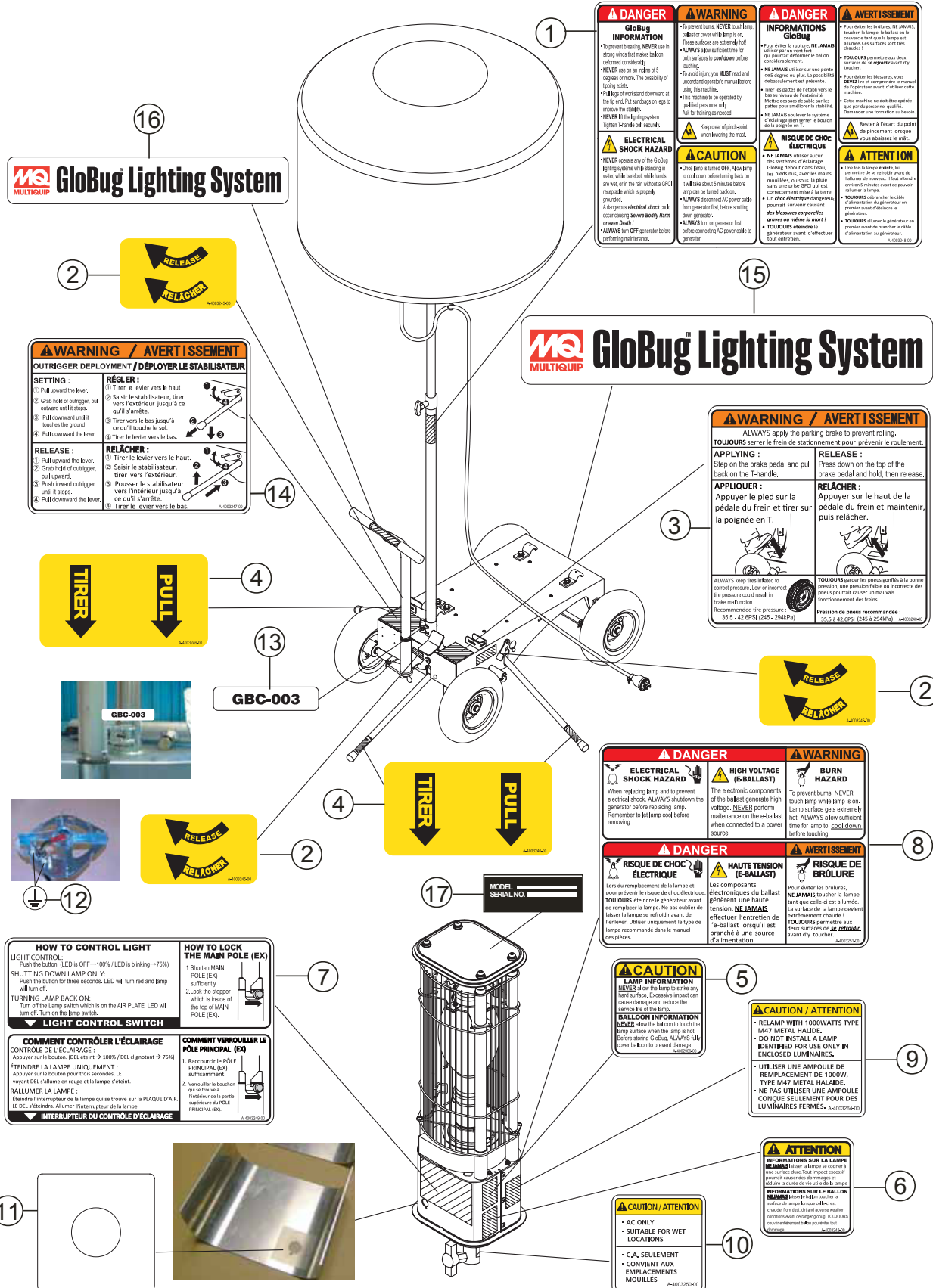
#### 1 to 3 units

Qty.	P/N	Description
2.....	E000080700 .....	LAMP
2.....	A300168900 .....	E BALLAST ASSY
2.....	GBB115DR.....	BALLOON CLOTH CP
3.....	2214500430.....	FILTER

#### NOTICE

Part numbers on this Suggested Spare Parts list may supersede/replace the part numbers shown in the following parts lists.

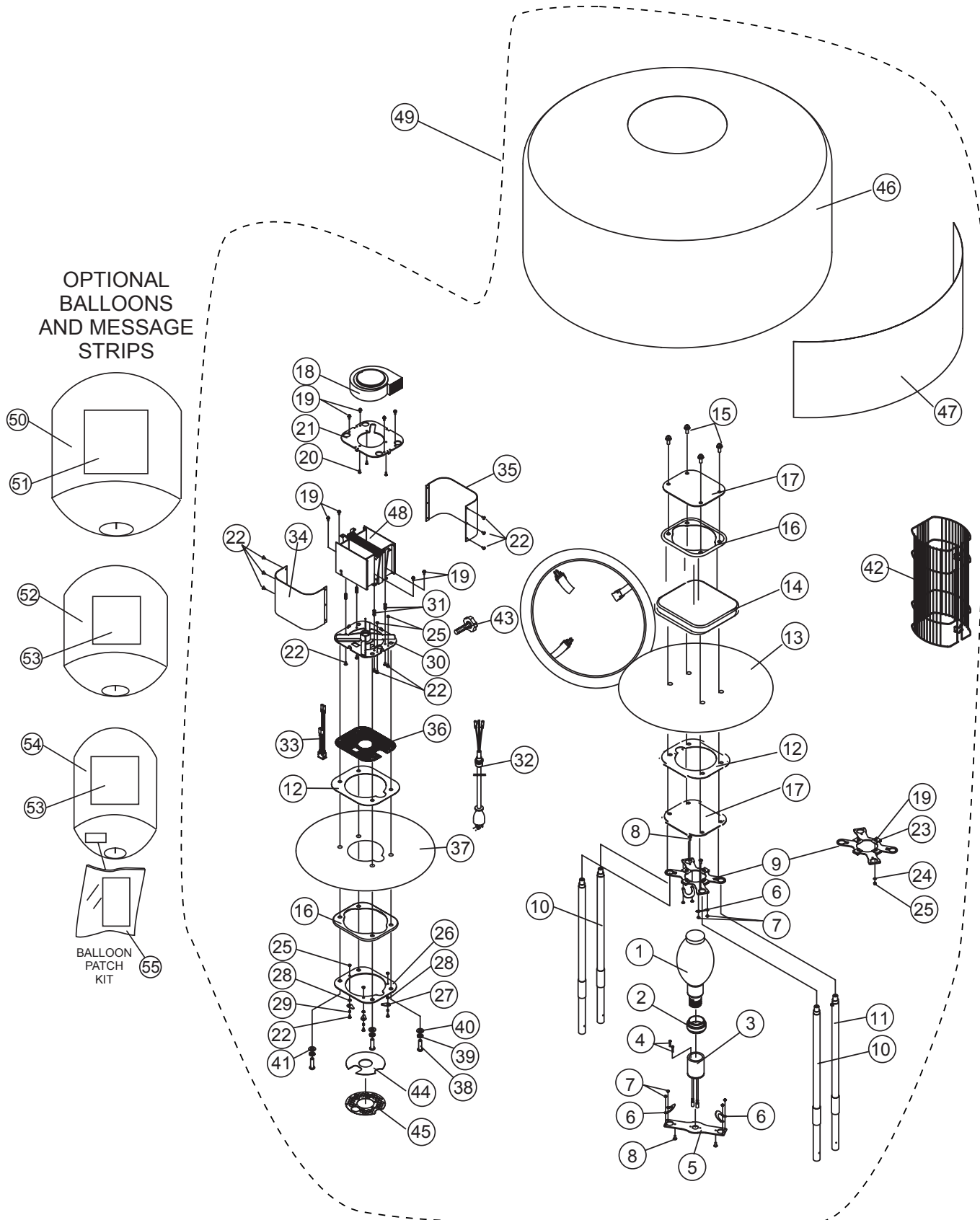
# NAMEPLATE AND DECALS



## NAMEPLATE AND DECALS

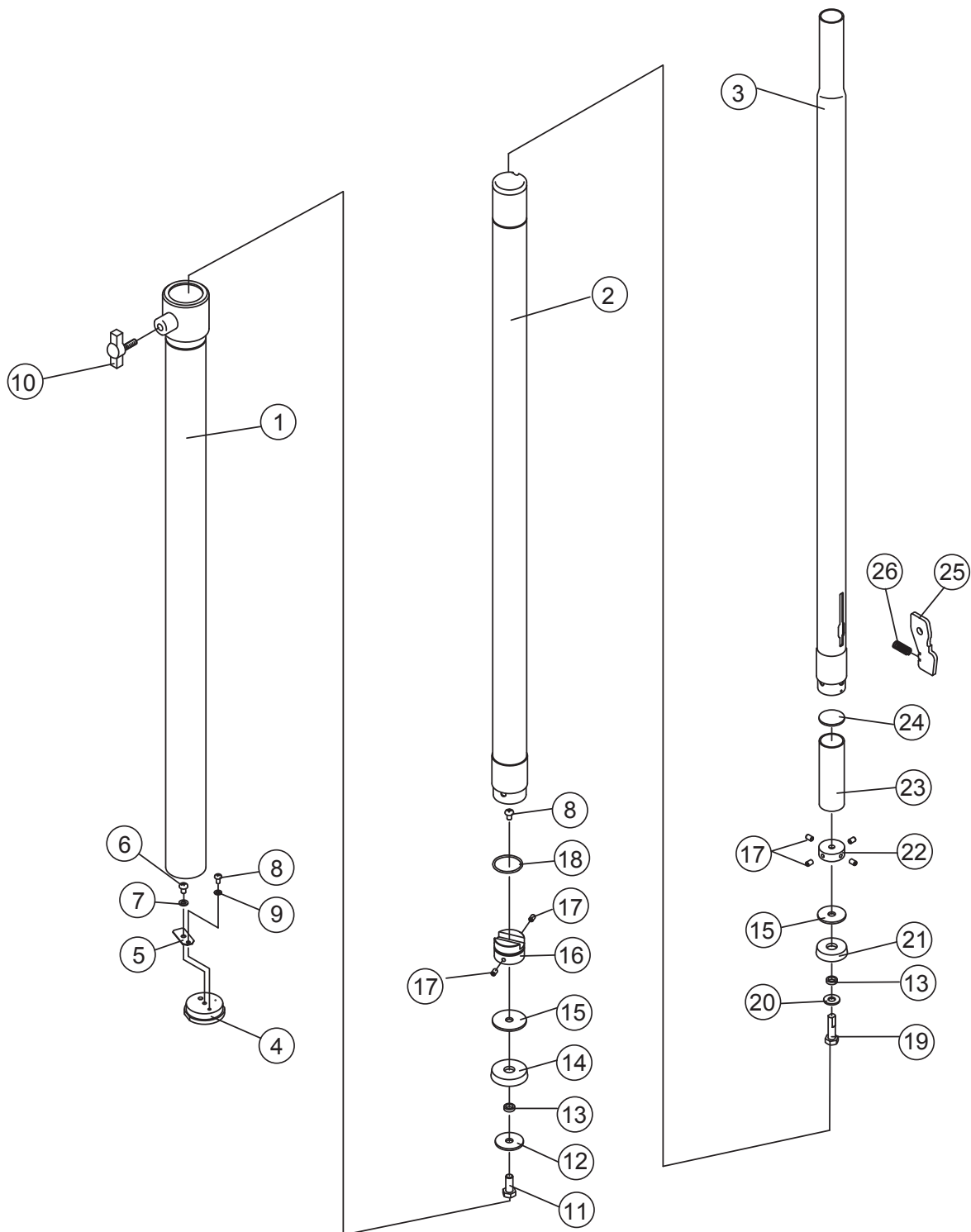
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A400324800	DECAL; GLOBUG INFORMATION	1	
2	A400324500	DECAL; RELEASE	3	
3	A400324000	DECAL; WARNING, PARKING BRAKE	1	
4	A400324600	DECAL; PULL	3	
5	A400290900	DECAL; CAUTION, LAMP INFORMATION (ENGLISH)	1	
6	A400324200	DECAL; CAUTION, LAMP INFORMATION (FRENCH)	1	
7	A400324900	DECAL; LAMP OFF SWITCH	1	
8	A400325100	DECAL; ELECTRIC SHOCK, HIGH VOLTAGE, BURN HAZ.	1	
9	A400326400	DECAL; LAMP TYPE	1	
10	A400325000	DECAL; CAUTION, AC ONLY	1	
11	A400206500	DECAL; DIMMER SWITCH	1	
12	A400084300	DECAL; GROUND	2	
13	A400207401	DECAL; GBC-003	1	
14	A400324700	DECAL; WARNING, OUTRIGGER DEPLOYMENT	1	
15	A400194900	DECAL; GLOBUG LIGHTING SYSTEM	1	
16	A400193300	DECAL; GLOBUG LIGHTING SYSTEM	1	
17		NAMEPLATE.....	1	..... CONTACT MQ PARTS

# BALLOON AND LAMP ASSY



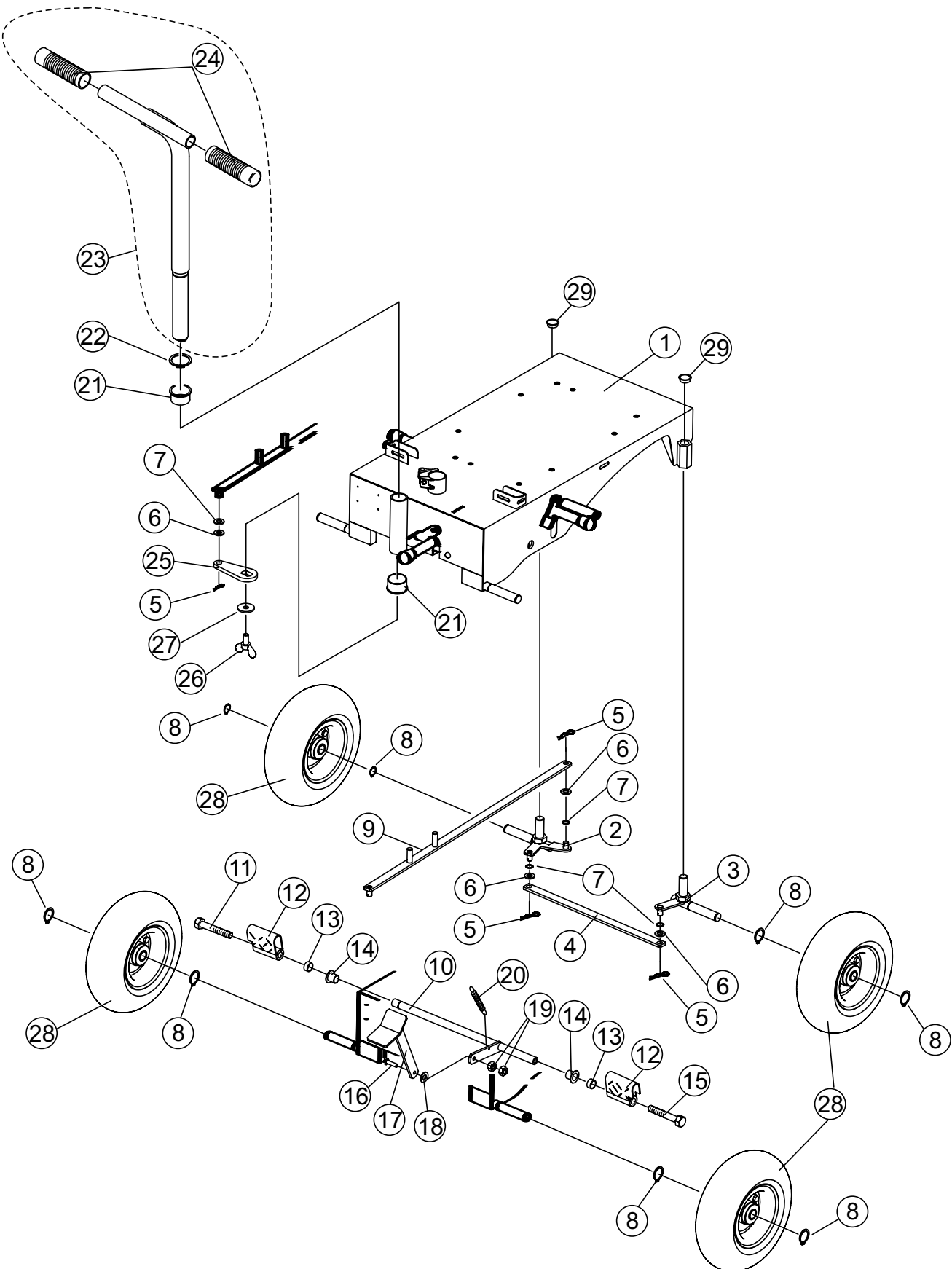
## BALLOON AND LAMP ASSY

<b>NO.</b>	<b>PART NO.</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1#	E000125600	LAMP MH1000	1	
2#	E000038200	RUBBER	1	
3#	A300273200	SOCKET ASSY	1	
4#	0023304015	SCREW AND WASHER, M4X15	2	
5#	A300160602	PLATE, LAMP	1	
6#	A400195200	STOPPER	4	
7#	0024304004	SCREW, M4x4	8	
8#	0023405012	SCREW, M5x12	4	
9#	A300174000	LAMP HOLDER	1	
10#	A200057703	MAIN POLE 1	3	
11#	A200061300	MAIN POLE 2	1	
12#	2214500230	SEAL, FLAT	2	
13#	A100061200	SHEET, TOP	1	
14#	A100060900	RED BALLOON COVER	1	
15#	0014808025	BUTTON SCREW & WASHER, M8x25	4	
16#	A300162400	SEAL, PACKING	2	
17#	A300165100	PLATE, TOP	1	
18#	A300264500	FAN MOTOR ASSY	1	
19#	0023304012	SCREW & WASHER, M4x12	12	
20#	0023204006	SCREW, M4x6	3	
21#	A300164900	PLATE, FAN	1	
22#	0024304008	SCREW, M4x8	15	
23	A400199500	PACKING, LAMP	4	
24	0043104000	WASHER, M4	4	
25#	0033104000	NUT, M4	9	
26#	A300145801	BOTTOM PLATE	1	
27#	A400030700	STOPPER, FILTER	3	
28#	E000077500	SPACER	3	
29#	E000009701	WAVE WASHER, M5	3	
30#	A200057603	FLANGE	1	
31#	E000070000	SUPPORT NUT	4	
32#	A300181901	POWER CABLE	1	
33#	A300269600	SWITCH	1	
34#	A300160003	COVER 1	1	
35#	A300160100	COVER 2	1	
36#	A300165001	PLATE, GUARD	1	
37#	A100061000	SHEET, BOTTOM	1	
38#	0014710035	BUTTON SCREW, M10x35	4	
39#	0043210000	SPRING WASHER, M10	4	
40#	2204510110	WASHER	1	
41#	0043110000	WASHER, M10	3	
42#	A100061300	LAMP GUARD	1	
43#	A400209801	KNOB	1	
44#	A300174401	FILTER	1	
45#	A300175300	PLATE, AIR	1	
46#	GBB115DR	BALLOON CLOTH .....	1.....	CONTACT MQ UNIT SALES
47#	GBBALD1	BLANK MESSAGE STRIP (OPTIONAL) .....	1.....	CONTACT MQ UNIT SALES
48#	A300275900	E BALLAST ASSY	1	
49	GBP	BALLOON/LAMP ASSY .....	1.....	INCLUDES ITEMS W/ #
50	GB48	BALLOON CLOTH (OPTIONAL) .....	1.....	CONTACT MQ UNIT SALES
51	GB48BMS	BLANK MESSAGE STRIP, 48"X48" (OPTIONAL) .....	1.....	CONTACT MQ UNIT SALES
52	GB36	BALLOON CLOTH (OPTIONAL) .....	1.....	CONTACT MQ UNIT SALES
53	GB36BMS	BLANK MESSAGE STRIP, 36" X 36" (OPTIONAL) .....	1.....	CONTACT MQ UNIT SALES
54	GB36N	BALLOON CLOTH (OPTIONAL) .....	1.....	CONTACT MQ UNIT SALES
55	1654000230	BALLOON PATCH KIT (OPTIONAL) .....	1.....	CONTACT MQ UNIT SALES



## MAST ASSY

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300175400	FIRST MAST	1	
2	A300175500	SECOND MAST	1	
3	A300175600	THIRD MAST	1	
4	A400199700	PLUG	1	
5	A400112700	LEAF VALVE	1	
6	0023104008	SCREW, M4x8	1	
7	0043104000	WASHER, M4	1	
8	0023105008	SCREW, M5x8	2	
9	0043105000	WASHER, M5	1	
10	A400187600	KNOB	2	
11	0013108020	BOLT, M8x20	1	
12	A400200500	WASHER	1	
13	A400110200	WASHER, MAST	2	
14	A400200700	RUBBER, MAST	1	
15	A400092801	WASHER	2	
16	A400200800	BOTTOM PLATE	1	
17	0024705008	SET SCREW, M5x8	6	
18	E000081200	O-RING	1	
19	A400202700	BOLT	1	
20	0043108000	WASHER, M8	1	
21	A400109600	RUBBER, MAST	1	
22	A400092402	BOTTOM PLATE	1	
23	A400200300	PIPE, LEVER	1	
24	A400200400	WASHER	1	
25	A400200201	LEVER, HOOK	1	
26	A400195700	SPRING, HOOK	1	

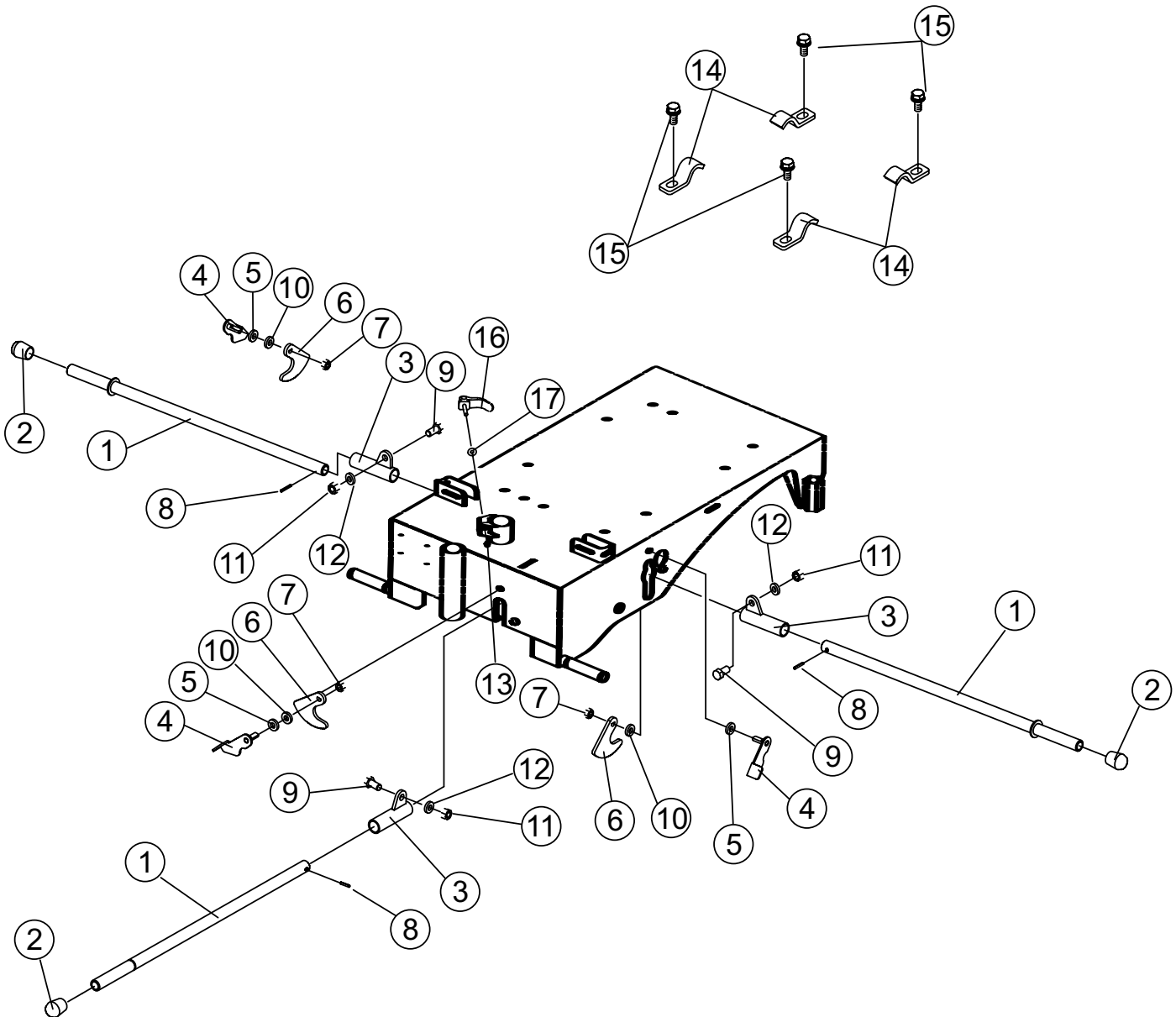




**BASE ASSY**

<b><u>NO.</u></b>	<b><u>PART NO.</u></b>	<b><u>PART NAME</u></b>	<b><u>QTY.</u></b>	<b><u>REMARKS</u></b>
1	A100064700	BASE PLATE	1	
2	A300147201	FRONT SHAFT (L)	1	
3	A300147301	FRONT SHAFT (R)	1	
4	A300056800	LINK, FRONT SHAFT	1	
5	0053512000	PIN	4	
6	0043112000	WASHER, M12	4	
7	1504120130	WASHER	4	
8	0040720000	SNAP RING	8	
9	A300137101	STEERING LINK	1	
10	A300150900	BRAKE SHAFT	1	
11	1521120131	BOLT, M12x75 LEFT SCREW	1	
12	2071214010	BRAKE	2	
13	A400189601	SPACER, BRAKE	2	
14	1503180130	SLEEVE BEARING, 18DX20Dx20	2	
15	0013212075	BOLT, M12x75	1	
16	0010308030	BOLT, M8x30	1	
17	2001200313	BRAKE PEDAL	1	
18	0043108000	WASHER, M8	1	
19	0033108000	NUT, M8	2	
20	1041000131	SPRING, BRAKE	1	
21	1503300130	SLEEVE BEARING, 30DX34Dx20	2	
22	0040730000	SNAP RING	1	
23	A200023001	HANDLE .....	1	INCLUDES ITEM W/ #
24#	1102700130	HANDLE GRIP	2	
25	A400176500	LINK, HANDLE	1	
26	0014212025	WING BOLT, M12x25	1	
27	0043112041	WASHER, 12DX40DX3.2T	1	
28	E000014500	TIRE ASSY, 4.10/3.505	4	
29	1652000430	CAP	2	

## OUTRIGGER ASSY



## OUTRIGGER ASSY

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300162202	OUTRIGGER	3	
2	1641001430	RUBBER FOOT	3	
3	A400175302	HOLDER, OUT, R	3	
4	A400176901	LEVER, OUT, R	3	
5	A400114401	WASHER	3	
6	A300147802	WEIGHT, OUT, R	3	
7	0033210000	SELF LOCK NUT, M10	3	
8	0053304025	SPRING PIN, M4x25	3	
9	0013112030	BOLT, M12x30	3	
10	0043110000	WASHER, M10	3	
11	0033212000	SELF LOCK NUT, M12	3	
12	0043112000	WASHER, M12	3	
13	0033206000	SELF LOCK NUT, M6	1	
14	A400166400	LOCKING CLAMP	4	
15	0013510025	BOLT AND WASHER, M10x25	4	
16	2212780310	LEVER	1	
17	0043108000	WASHER, M8	1	

# TERMS AND CONDITIONS OF SALE — PARTS

## PAYMENT TERMS

Terms of payment for parts are net 30 days.

## FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

## MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

## RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
  - a. The parts numbers and descriptions must match the current parts price list.
  - b. The list must be typed or computer generated.
  - c. The list must state the reason(s) for the return.
  - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
  - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.
4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.

5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
  - a. Obsolete parts. (If an item is in the price book and shows as being replaced by another item, it is obsolete.)
  - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
  - c. Any line item with an extended dealer net price of less than \$5.00.
  - d. Special order items.
  - e. Electrical components.
  - f. Paint, chemicals, and lubricants.
  - g. Decals and paper products.
  - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for five working days from notification, pending instructions. If a reply is not received within five days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted, for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

## PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

## SPECIAL EXPEDITING SERVICE

A \$35.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

## LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable hereunder for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

## LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. Apart from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

Effective: February 22, 2006

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# OPERATION AND PARTS MANUAL

## HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL  
NUMBER ON-HAND WHEN CALLING

### UNITED STATES

#### ***Multiquip Corporate Office***

18910 Wilmington Ave.  
Carson, CA 90746  
Contact: mq@multiquip.com

Tel. (800) 421-1244  
Fax (310) 537-3927

#### ***Service Department***

800-421-1244  
310-537-3700

Fax: 310-537-4259

#### ***Technical Assistance***

800-478-1244

Fax: 310-943-2238

#### ***MQ Parts Department***

800-427-1244  
310-537-3700

Fax: 800-672-7877  
Fax: 310-637-3284

#### ***Warranty Department***

800-421-1244  
310-537-3700

Fax: 310-943-2249

### MEXICO

#### ***MQ Cipsa***

Carr. Fed. Mexico-Puebla KM 126.5  
Momoxpan, Cholula, Puebla 72760 Mexico  
Contact: pmastretta@cipsa.com.mx

Tel: (52) 222-225-9900  
Fax: (52) 222-285-0420

### CANADA

#### ***Multiquip***

4110 Industriel Boul.  
Laval, Quebec, Canada H7L 6V3  
Contact: jmartin@multiquip.com

Tel: (450) 625-2244  
Tel: (877) 963-4411  
Fax: (450) 625-8664

### UNITED KINGDOM

#### ***Multiquip (UK) Limited Head Office***

Unit 2, Northpoint Industrial Estate,  
Globe Lane,  
Dukinfield, Cheshire SK16 4UJ  
Contact: sales@multiquip.co.uk

Tel: 0161 339 2223  
Fax: 0161 339 3226

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This manual **MUST** accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

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Your Local Dealer is:

